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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,273	04/20/2004	Hiroyuki Ishida	Q81168	2403

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EXAMINER	
DZIERZYNSKI, EVAN P	

ART UNIT	PAPER NUMBER
2875	

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/827,273	ISHIDA, HIROYUKI	
	Examiner	Art Unit	
	Evan Dzierzynski	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 April 2003* is/are: a)☒ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/1/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

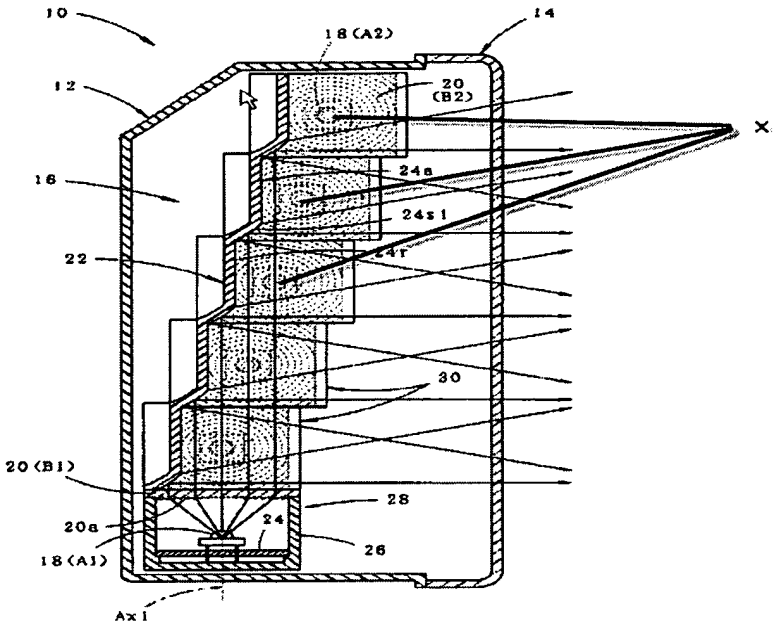
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Amano (US Pub 6,672,746).

Amano teaches a head lamp that forms a luminous distribution pattern having a horizontal cutoff line (Figure 1 item B) in an upper portion and a protrusion that protrudes upward from the horizontal cutoff line, not numbered in the patent, but drawn in this figure as X.

FIG. 2



The lamp of Amano comprises a lighting device unit that conducts illumination for forming the upward protrusion X. Each of the lighting device units are comprised of a light source configured by a semiconductor light emitting device having a plurality of light emitting chips horizontally arranged in a row being forward directed (figure 4.18), Amano also teaches a projection lens disposed in front of the light source that projects an inverted image of the light source toward a front of the head lamp B1.

As for claim 2, Amano teaches the lamp as discussed above, wherein the light emitting chips are arranged on a focal plane of the projection lens (figure 2, plane not numbered).

As for claim 3, Amano teaches the lamp as discussed above, wherein each of the light emitting chips has a substantially parallelogram shape (figure 4, 18 A1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amano in view of Turnbull (US Pub 2003/0156425).

Amano teaches the lamp as discussed above, wherein at least one lighting device unit comprises a plurality of light device units A1, but fails to teach corresponding pitches of each light emitting diode that are slightly different from one another by a predetermined amount. Turnbull (US Pub 2003/0156425) teaches LED light chips with predetermined different pitches (paragraph 0129). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the different pitches of Turnbull with the device of Amano in order to allow the light to be reflected out of the lamp in more directions in order to provide more lighting.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amano in view of Levin et al. (US Pat 4646207).

As for claim 5, Amano teaches the lamp as discussed above, but fails to teach a projection lens that is integrated with the light source to hermetically seal the plurality of light emitting chips of the light source, however, Levin et al. teaches a projection lens

that is integrated with the light source to hermetically seal a plurality of light emitting chips of a light source. It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the hermetically seal for the light source of Levin et al. with the lamp of Amano in order to protect the lamp from dirt and dust build up that would otherwise collect in the area around the light chips.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naganawa in view of Amano.

Naganawa et al. teaches a lamp that forms a luminous distribution pattern having a horizontal component (figure 1) and an upwardly extending oblique component 12C. Naganawa et al. also discloses a lighting system horizontally positioned at the middle portion of the lamp 12B that generates a focused light that varies with the horizontal swinging of the lamp (column 4, line 56+), but fails to teach lighting systems in an upper region and lower region. The device of Naganawa et al. consists of only one row of three light units (figure 1), which provide sources of both diffuse and focused light. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Naganawa by adding a row of light units above and below it since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Naganawa also teaches a lighting system with a plurality of light emitting units and a projection lens having a shape corresponding to the arcuate projection plane 14, the headlight cover is both an arcuate plane and a projection lens. The projection lens projects an image of a lighting unit toward a front of the lamp to form the oblique

component 12C. Naganawa fails to teach light emitting units each having substantially parallelogram shape. Amano teaches a lighting unit that includes a plurality of light emitting units each having substantially parallelogram shape (figure 4, 18 A1). It would have been obvious for one of ordinary skill in the art at the time of the invention to take the plurality of light emitting units of Amano and place them on the arcuate plane of Naganawa 14 in order to provide more light for the lighting unit, the parallelogram shape however, is an obvious change of shape, since it has been held by the courts that a change in shape or configuration, without any criticality, is nothing more than one of numerous shapes that one of ordinary skill in the art will find obvious to provide based on the suitability for the intended final application. See *In re Dailey*, 149 USPQ 47 (CCPA 1976). It appears that the disclosed device would perform equally well as the shape as disclosed by Naganawa.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naganawa and Amano and further in view of Natsume (US Pat 6619825).

As for claim 7, Naganawa and Amano teach the lamp of claim 6, but fail to teach a focal length of the third lighting system that exceeds a focal length of the first lighting system and a focal length of the second lighting system, and that the first and third light systems form the horizontal component. Natsume teaches a lamp wherein a focal length of a third lighting system exceeds a focal length of the first lighting system and a focal length of the second lighting system, and that the first and third light systems form the horizontal component (focal length not labeled in patent, added into drawing below).

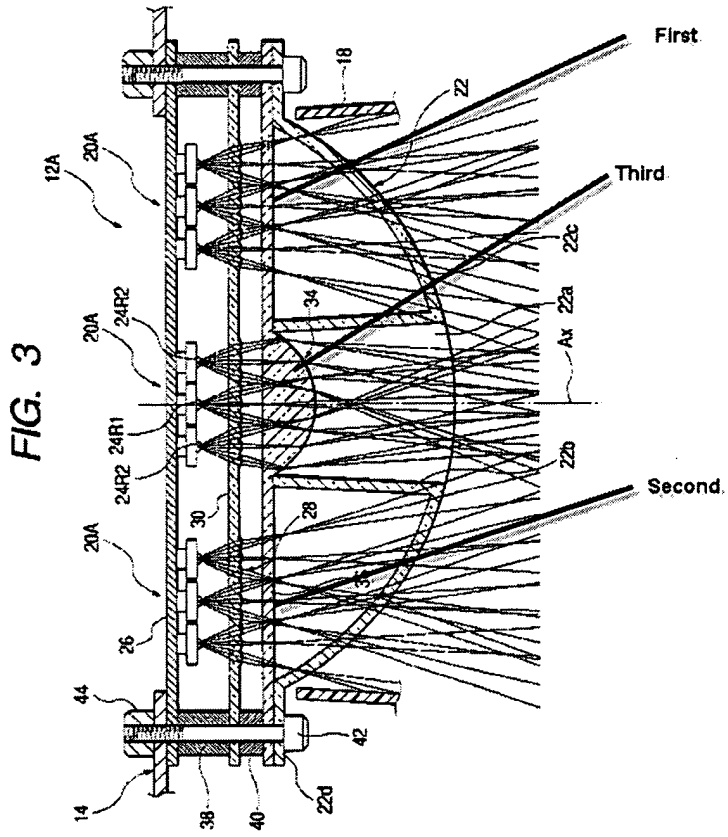


FIG. 3

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine characteristics of the focal lengths of Natsume with the lamp of Naganawa and Amano in order to provide the lighting system with a more wide array of light, since there will be more directions for it to travel in as it passes through the different lenses.

As for claim 8, Naganawa and Amano teach the lamp of claim 6. Naganawa teaches three light emitting units (figure 1) such that when the lamp is horizontally swung left a first one of the units is transited to its on position, when the lamp is

positioned substantially parallel with respect to a direction of travel, a second of the light emitting units is transited to its on position, and when the lamp is horizontally swung right, a third of the light emitting units is transited to its on position (column 4, line 56+). Naganawa does not specifically teach a plurality of light emitting units to comprise the three light emitting units, however, it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the lights of Naganawa and put more light emitting devices in it, since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

As for claim 9, Naganawa and Amano teach the lamp of claim 8, wherein the second set of light emitting units is positioned between the first and third units on the arcuate shaped plane (figure 1) such that a right oblique side of the second set of light emitting units 12C passes through an optical axis of at least one lighting unit (12B).

As for claim 10, Naganawa and Amano teach the lamp of claim 6, Amano teaches a lighting system comprised of a light emitting unit positioned directly above an optical axis of the first lighting system (fig 3.18). Also, a first system projection lens positioned along the optical axis a distance in front of the first system light-emitting unit (fig 3.20 B2).

As for claim 11, Naganawa and Amano teach the lamp of claim 6, Amano teaches the configuration of this lighting system as discussed in claim 10, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the lighting system configuration for claim 10 and duplicate it to make a second system

since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

As for claim 12, Naganawa and Amano teach the lamp of claim 6. Naganawa teaches a plurality of light emitting units that comprises three light emitting units such that when the lamp is positioned substantially parallel with respect to a direction of travel, at least one central of the light emitting units is transited to its on position (column 4, line 56+). Also, when the lamp is horizontally swung left, at least one of the light emitting units on a first side of at least one central light emitting units is transited to its on position, and when the lamp is horizontally swung right, at least one of the light emitting units on a second side is transited to its on position (column 4, line 56+). Naganawa fails to teach a light system with four light emitting units, but it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the lamp of Naganawa and Amano, which contains three light units, and add another light emitting unit to it.

As for claim 13, Naganawa and Amano teach the lamp of claim 12, Naganawa teaches a central light emitting unit is positioned on the arcuate shaped plane such that a right oblique side thereof passes through an optical axis of the unit (12B) and is about a half pitch apart from a pitch of an adjacent lighting unit of the third lighting system (pitch can be seen in figure 2).

Claim 14 is rejected for its dependency on rejected claim 6.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evan Dzierzynski whose telephone number is (571)-

272-2336. The examiner can normally be reached on Monday through Friday 7:00 am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on M-F (571)-272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Evan Dzierzynski

9/1/2005

David Gray
Primary Examiner